



The Minuteman Repeater Association is a non-profit organization providing communications infrastructure and volunteers for community and emergency events.

Membership Meeting: Wednesday, 20 September 2023 ~7:30—9:30 pm

The National traffic system (NTS), nets in the area, and the basics of sending a radiogram.

Marcia Forde, KW1U & Joe Weisse, W1HAI

This is a Hybrid meeting: New England SciTech + ZOOM

(Directions to New England SciTech on Page 8)

Members: log into your account on [MMRA.ORG](https://mmra.org) to obtain the ZOOM info.

Non-members: send an email to contact@mmra to request the ZOOM info.

Learn the skills of accurate and efficient message relay using the radiogram format, including the ICS-213 forms. Learn how traffic nets, such as the Heavy Hitters Traffic Net (HHTN: which is hosted on our MMRA repeater network) can help you learn and practice those skills that emergency communications agencies require. *Be prepared to help if called upon!*

Marcia Forde KW1U began 40 plus years of message handling in 1981 and over the ensuing years has held various positions such as Official Relay Station, Net Control Station, Net Manager, Section Traffic Manager (STM) and others. In addition to her current position as STM for three New England sections she also has been serving on the NTS subcommittee of ARRL's EC&FS committee, charged with improving and revitalizing NTS with added emphasis on emergency communications.

Joe Weiss, W1HAI, has been a ham since 1966 and has been affiliated with the MMRA since the mid-70's. He was HHTN net manager from July 2015 to August 2023. He is still involved with the net and others including ARES Skywarn and Natick nets.

Annual Election Results

President: Dave Hornbaker – N1DCH

Vice President: John Spencer – WA1MDD

Secretary: Jason Peardon – W1HFP

Treasure: Kevin Paetzold – K1KWP

Clerk: Stephen M Babbitt – KC1LPZ

Director >> 2025: Roger Coulson – WA1NVC

Director >> 2025: Bob DeMattia – K1IW

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About the Minuteman Repeater Association

MMRA Control Operators Responsibilities

<https://www.mmra.org/MMRACOPolicy-March2019.pdf>

The Minuteman Repeater Association (MMRA) is dedicated to Amateur Radio and public service. The MMRA maintains a large system of repeaters in Eastern Massachusetts.

The MMRA meets each month from September to June. Meeting times, locations, and talk-in frequency vary and are announced in this newsletter and on weekly nets. Meetings are open to all interested parties. Guest speakers and programs of general interest occur in September, November, January, March, and May. The intervening meetings are also open to all members and are for general business.

The Minuteman newsletter is emailed one week before each general interest meeting. Members are encouraged to submit articles: send to the editor at newsletter@mmra.org. The deadline for articles is the last Friday of the month preceding the meeting.

Each Tuesday evening at 8pm the MMRA links most of the repeaters for an open net. The topic is "Technical Information and Other Stuff". Join us!

Membership in the MMRA is open to all radio amateurs. Annual dues are \$25 per individual or \$35 per family. See our website for details.

Contact information is listed on the top of the last page of this newsletter.

No part of this newsletter can be copied or posted elsewhere without prior approval from the club.

MMRA QRM Policy

MMRA members and all other operators are strongly encouraged to report repeater activity that does not abide by Part 97 rules or accepted amateur radio practice to the board of directors at contact@mmra.org or via other means.

The most effective way (and probably the only effective way) to deal with an individual causing QRM is to NOT engage with that individual on the air. Please include the time and date of any incident.

Repeater and Frequency Information

Band	XMTR Location	Freq	PL	Call	Linking To:	
					Hub 1	Hub 2
10m	Marlboro East	29.680	131.8	W1MRA	PTL	PTL
Linked to 146.79: 9am-3pm every day						
6m	Marlboro East <i>Remote receive Marlboro West: PL=100</i>	53.810	71.9	W1BRI	PTL	PTL
2m	Brookline	145.160	na	K1MRA	D-Star (REF050C)	
	Belmont	145.430	146.2	KC1CLA	PTL	FTL: DARI
	Mendon	146.610		K1KWP	FTL	PTL
	Quincy	146.670		W1BRI	FTL	PTL
	North Reading	146.715		KC1US	FTL	PTL
	Weston	146.790		W1HAI	PTL	PTL
	Boston	146.820		Linked to 29.68: 9am-3pm every day		
	Billerica	147.120		K1BOS	FTL	PTL
	<i>Output tone = 162.2</i>			W1DC	PTL	PTL
	Marlborough	147.270		W1MRA	PTL	PTL
1½m	Marlborough	223.940	103.5	W1MRA	FTL	PTL
	Quincy	224.400		N1KUG	FTL	PTL
	Weston	224.700		N1NOM	PTL	PTL
	Burlington	224.880		KC1US	FTL	PTL
70cm	Lowell	442.250	88.5	K5TEC	FTL	PTL: 446.775
	Weston *	442.700	88.5	N1DCH	Network Hub 2 (PTL to Hub 1)	
	North Reading <i>System Fusion</i>	446.775	88.5 Linked 71.9 Local	W1DYJ	FTL [88.5]	PTL [88.5]
	Marlborough	448.225	na	W1MRA	D-Star (REF050C)	
	Hopkinton <i>System Fusion</i> <i>Out PL = 162.2</i>	449.575	88.5 Linked 71.9 Local	W1BRI	FTL [88.5]	PTL [88.5]
	Marlborough *	449.925	88.5	W1MRA	Network Hub 1	
33cm	Boston *	927.0625	D244	K1RJZ	PTL	PTL
	Marlborough *	927.700		W1MRA	PTL	PTL
<i>PL out = 131.8</i>						
Marlborough		144.390	none	W1MRA	APRS Digipeater	
???		145.630	146.2	W1MRA	Fox Box	

*Internet	HUB1- 449.925: IRLP node 4133 / Echolink node 4133 Connected to Echolink NEWENG2 conference (9127) for TIAOS net.					
	HUB2 - 442.700: IRLP node 4136 / Echolink node 4136 Connected to 220 Reflector 9124 on Tuesdays					
	927.0625: IRLP 4977			Normally linked to the NE900 Reflector, 9125. Linked to MMRA via "NEW-ENG2" node 9127 for the TIAOS net.		
	927.700: IRLP 4978			Normally linked together.		

Notes: FTL = Full Time Linked (or default state) PTL = Part Time Linked (on schedule or demand)
Note — a repeater can be linked to only one Hub at a time, however the two hubs can also be linked together.

President's Corner ~ David Hornbaker, N1DCH

HamXposition: I would like to thank those that stopped by the MMRA room. It was great seeing you in person! We had one new member sign up, 14 new hams get free memberships, and 10 renewals. During the morning VE session, the MMRA VE team administered tests to 16 people resulting in 7 new Technicians, and 8 upgrades.

Special thanks to those who participated in the MMRA raffle.

In person: Everyone is invited to attend in person September's membership meeting at New England Sci-Tech in Natick [Directions: https://www.nescitech.org/directions/](https://www.nescitech.org/directions/). Meetings are a great place to meet and greet your fellow hams and to welcome our new members. Bring a friend, you do not have to be a member to attend.

Via Zoom: All MMRA meetings are also available via Zoom. The Zoom code is available to members on <http://www.mmra.org>. If you need assistance getting connected, contact us at contact@mmra.org. If you are not a member, you can request the meeting code via email at contact@mmra.org.

Guest Speaker Marcia Forde – KW1U & Joe Weisse – W1HAI: Marcia will be discussing the National Traffic System and Joe will be discussing the Heavy Hitters Traffic Net, which is hosted in part on several MMRA repeaters.

VE Exams: The September VE Session will be held on Saturday, September 16 at 9:00 AM, at City Church Marlborough in the Shoebox Building (adjacent to Kelleher Field), 72 Jefferson Street 2nd floor, Marlborough, MA 01752, Directions: <https://www.bing.com/maps?q=72%20Jefferson%20Street+marlborough+ma&FORM=HDRSC4> Walk-ins are welcome. Please remember to bring a State ID, your FRN, and if upgrading, an Official copy of your current license. For more information, contact Ron – WO1E at ve@mmra.org or wo1e@mmra.org.

Membership renewal: All MMRA memberships expired on August 31. Please check your profile and if your membership expired in 2023, please renew. Renewals may be done on the website, or you can mail your renewal to Minuteman Repeater Association, PO Box 669, Stow, MA 01775-0669. Please allow 7 days for us to process your renewal. Please allow 14 days for renewals that are mailed. While you're on the website (<https://www.mmra.org>) checking your expiration date, please verify your email address.

Tuesday Net: Join us Tuesday night at 8:00 PM for our weekly Technical Information and Other Stuff (TlaOS) net. There will be a lively discussion on all sorts of HAM issues, including equipment, antennas, software, repeaters, and other stuff. The main purpose is to test our ability to link up the repeaters in case of an emergency or to support an event like the Boston Marathon. You can also join via EchoLink if your radio is a little under the weather. See below for more information.

You can find out more information about how and when the repeaters are linked on the website (https://www.mmra.org/repeaters/repeater_linking.html).

Please remember to keep your profile up to date, especially if your email changes. Note that if your call-sign changes, send email to contact@mmra.org and we will update your callsign in the database.

73

Dave – N1DCH

15 May 2023 Annual Meeting ~ Minutes

Called to order @ 7:28 PM

The initial agenda item called for “introductions” of the attendees at the Marlborough Central Fire Station and those members attending on Zoom.

Elections

A motion was made to vote on the entire slate of officers and directors in one vote. That passed unanimously. The entire slate of officers and directors were voted in unanimously as well.

Candidates –All running unopposed

President – Dave Hornbaker – N1DCH

Vice President – John Spencer – WA1MDD

Treasurer – Kevin Paetzold – K1KWP

Secretary – Jason Peardon – W1HFP

Clerk – Stephen Babbitt – KC1LPZ

Directors

Roger Coulson – WA1NVC

Bob DeMattia – K1IW

Pending Business: The Board of Directors has recommended:

Replace the Boston (146.82) RF Unit and UHF bandpass filter

Replace the North Reading (146.715) RF Unit and amplifier

Total Amount not to exceed \$4,900. (Amended to not exceed \$5,400) *

Bob, K1IW, suggested that we use a Motorola Quantar at the Pru. The unit can be purchased for \$500. This would allow us to purchase three rigs and use the second Kenwood to upgrade Mendon.

*Moved by W1DYJ to amend the motion to increase it to “**not to exceed \$5,400.**” Seconded by W1HAL. Passed unanimously.

Repeater Status Report – from Bob DeMattia, K1IW

Prudential Antenna – The new Boston-Prudential Antenna was installed on April 25th. The repeater can be keyed all the way down the Mass Pike to the Route 495 exit. Bob has linked this repeater to Hub 1. Please refer to the May MMRA Newsletter, (page 10) for his complete report with photos.

North Reading – The site cleanup is still scheduled for June 10th. However, an additional date will be scheduled to upgrade the 2m repeater when the new Kenwood is received.

10 Meter Weston Receiver: - The intermittent functioning still evident. See notation on 2m.

6 Meters: No further issues reported at tonight’s membership meeting.

2 Meter Weston Repeater – Bob and Dave visited this site regarding the 10m and 2m Repeater issue. The SWR issue that was brought up during the February Monthly Business Meeting is possibly due to water getting into the coax, or possibly hardline damage.

All other MMRA Repeater systems normal – No other malfunctions reported.

MMRA & DLARC The Internet Archives is seeking Amateur Radio - Wayback” Machine -

We view real value having our relationship with The Data Library Archives once we can effectively protect our historical records and document.

15 May 2023 Annual Meeting ~ Minutes, cont'd

VE Exam Session:

Saturday May 20th at 9:00 AM

City Church Marlborough in the Shoebox Building (adjacent to Kelleher Field, 72 Jefferson Street, 2nd Floor, Marlborough, MA 01752

Please tell your friends, who are interested in taking tests, they must have photo Ids and FRNs. No SS# are accepted by the FCC.

Copy of license required, if upgrading, (or proof from ARRL or QRZ website)

New Business: Eric, KV1J, who manages the Marlborough EOC, brought up WinLink with the MMRA for extended emergency service. He will present a written proposal on how that will benefit both the MMRA and the EOC.

Upcoming Meetings

June 21, 2023, 7:30 PM – Business Meeting – AREDN Part 2

Michael Ford – WZ0C

New England Sci-Tech Natick & Zoom Teleconference

September 20, 2023, 7:30 PM The National Traffic System, Nets in the Area and the Basics of Sending a Radiogram Speakers: Marcia Ford, KW1U and Joe Weisse, W1HAI Location TBD

October 18, 2023, 7:30 PM Business Meeting – Zoom Only

November 22, 2023, 7:30 PM A Smorgasbord of Radio -The People, Places and Incidents

Speaker Don Mallozzi – N1DM Location: TBD.

Tuesday night, 8:00 PM (Year Round)

Technical Information and Other Stuff Net on the MMRA Linked Repeaters

The business portion of this meeting ended at 7:54 PM

Presentation: An Introduction to POTA – Dave Hornbaker – N1DCH

POTA is Parks On The Air – founded in September, 2010 – as a fun and challenging way to enjoy Ham Radio. The two different activities are Hunting and Activating.

Hunters register on the POTA website at <https://parkesontheair.com> and <https://pota.app>. Please read and follow the rules. Each Federal and State Park are assigned specific park numbers. For example, the Appalachian Trail is K-4556-MA in Massachusetts. In Maine it is K4556-ME

Activating a park requires planning by verifying park hours, park boundaries and ensuring your batteries are charged up, packing a “go bag” with equipment to operate a station, sunscreen, bug repellant and other essentials to operate safely without interfering with other park visitors. Operate safely and CLEAN UP after you are finished. Then prepare your log(s) for submission.

Software: Dave provided a chart listing the programs to use. Most are free. For logging Dave uses N3FJP at <https://www.n3fjp.com> for \$34.99. He also uses N3FJP contest program for contesting. For operating FT8 or FT4 use WSJT. One very important software piece to identify your Grid Square is called “Ham Square” for you phone for free.

Another program is WWFF – World Wide Flora & Fauna – <https://wwff.co> <https://wwff-kff.org>. On getting started with WWFF do the Registration form and read the rules for Global and the USA

Please check the slides Larry will post in the Newsletter for more details beyond this summary.

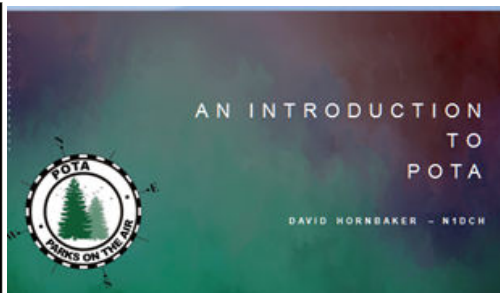
Meeting Attendees at Marlborough Central Fire Station: Dave Hornbaker, N1DCH; Kevin W Paetzold, K1KWP; Stephen Babbitt, KC1LPZ; Ken Horton, KA1GFN; Deb Horton, N1NVS; Larry Banks, W1DYJ; Jason Peardon, W1HFP; Eric Williams, KV1J **Zoom Meeting Attendees:** Joe Wiese, W1HAI; Bob DeMattia, K1IW; Larry Vidoli, W1LSV; Mora Stone, WA1MCS; Mike Royer, KC1HNG; John Spencer, WA1MDD

Meeting Adjourned at 9:18 PM

Respectfully Submitted by Stephen M Babbitt, KC1LPZ, Clerk

15 May 2023 Meeting: Presentation Slides

An Introduction to POTA ~ David Hornbaker, N1DCH



WHAT IS POTA

- Parks on the Air was founded in September 2010
- Encourage portable operation in local, state, or national parks
- Two different activities, Hunting and Activating

GET STARTED HUNTING

- Register on the POTA website [Sign Up \(pota.app\)](https://pota.app)
 - There are two POTA websites, <https://parksontheair.com> and <https://pota.app>
 - pota.app is the main website, parksontheair.com mostly redirects to pota.app
- Read the rules and FAQs are at <https://doc.pota.app>
- POTA Code of Conduct
- Park numbers
 - <PP><XXXXX><ST>
 - PP primary prefix of the country containing the park
 - XXXXX – 5-digit park number
 - ST – optional state or province identifier (Only needed if park crosses state boundaries)
 - Appalachian trail in Massachusetts is K-4556-MA

HUNTING

- Bands
 - Any Amateur band is acceptable
 - Make sure you stay within your country allocation/band plan
 - (for example, Canadian 40m phone starts at 7.040)
 - POTA is not a contest (most of the time) there is activity on the WARC bands
- Modes
 - Any mode is acceptable
 - CW, FT8, SSB most common
 - FM simplex is common on VHF and above
 - Some modes, for example SSTV, seem impractical because of the time a QSO takes
- No terrestrial repeaters

HUNTING

- Exchange
 - There is no specified exchange
 - Activators typically do signal report and park number
 - Hunters typically do signal report and state
 - Contest exchange can also be used (many activators like to do contests from a park)
 - FT8 and FT4 use the standard exchange in most cases this does not include park number
- Logging
 - Hunters are not required to log contact to get credit
 - Hunters are encouraged to keep a log and upload it to one of the services
 - LOTW, [eQSL](https://pota.app), QRZ, or your favorite service.
 - Hunters receive credit when activators submit their logs
 - Your POTA contacts are available at <https://pota.app/userlogbook>

ACTIVATING A PARK

- Activation workflow
 - Pre activation
 - Verify park hours
 - Select Antenna and Rig for activation
 - Ensure batteries are charged
 - Verify Go bag contents
 - Schedule activation on website (POTA, WWFF)
 - Allows for spotting of CW and FT-8 from RBN automatically
 - Don't forget the sunscreen and insect repellents

ACTIVATING A PARK

- At the park
 - Make sure you are in the park and the park is open
 - Check for 2-fer and 3-fer
 - You can be in more than one park (e.g.: Appalachian Trail goes through Mt Graylock State Park)
 - Find a safe, out of the way, spot to setup
 - Avoid high traffic area where someone could get tangled in antenna, counterpoise, or coax
 - Update software with correct location (Latitude, Longitude, Grid Square)
 - Spot yourself

ACTIVATING A PARK

- Start operating
 - Try 2m simplex
 - North America Adventure Frequency – 146.58
 - National calling frequency – 146.52
 - P2P – Try to hunting other activators
 - Calling CQ (with or without the POTA)
 - Any contact counts, 10 contacts needed for an activation
 - No terrestrial repeaters
 - No formal exchange
 - Activators customarily give RST, Park number, and state
 - Hunters: RST and state (unless P2P where hunter would also give park number)
 - Multi-state parks (e.g.: Appalachian Trail) requires the state (K-4556-MA)
 - Multi operator is just fine, after exchange is complete just say, "Stand by for second op."

ACTIVATING A PARK

- Pack up, Clean up
- Prepare log(s) for submission
 - Transfer paper log to an ADIF file if using paper
 - Export ADIF file from logging software
 - Verify log has MY_SIG_INFO and if the correct park number
 - One log for park per UTC day
 - 2-fer requires 2 logs
 - Operating past 23:59 requires a new log
 - POTA file name <call>@<park><date> (e.g. N1DCH@K-2424-2023-05-08)
 - POTA post file to pota.app website
- Charge batteries, replenish go-bag as needed

15 May 2023 Meeting: Presentation Slides, continued

An Introduction to POTA ~ David Hornbaker, N1DCH

ANTENNA AND RIGS

- Rigs in use for POTA range from small 1–2-watt CW transceivers to larger QRO rigs
- Popular antenna choices
 - Hamsticks
 - Wolf River Coil
 - End Feed Half Wave
 - Random Wire (with and without balun)
 - AX-1
 - Remember they all really do need a counterpoise

GO BAGS

- Small backpack to portable rack case
- Modular
 - Radio and antenna modules can be swapped depending on needs
 - Different go bags for different needs (drive up activation vs hiking into a site vs climbing to a summit)
 - Multiple radio modules depending on functionality and weight
 - Multiple antenna choices

ADDITIONAL ITEMS

- Arborist throw line, throw bag, and storage cube
- 7m fishing pole mast
- Mast mounting tube (1.25" PVC with 10" nails clamped to tube)
- Mallet
- Portable folding 4ft table and folding chair
- Water

LOGGING OPTIONS

- Paper
 - You will need to transfer to an ADIF file to submit
 - Backup for electronic logging
- Your favorite logging program
 - Many have configuration files for POTA
- Logging on Phone
 - HAMRS

LOGGING

- Submitted ADIF file should contain
 - CALL, QSO_DATE, TIME_ON, MODE, BAND for each contact
 - The activated Park reference – MY_SIG_INFO (e.g., K-2424)
 - Park reference for any P2P – SIG_INFO (Multiple entries if P2P is a 2or3-fer)
 - For club stations STATION_CALL SIGN and OPERATOR
- If you are activating a 2 or 3-fer, submit an ADIF for each park (changing MY_SIG_INFO)
- Always submit logs even if you didn't get the 10 contacts for an activation
 - Hunters only get credit if you submit a log

SOFTWARE

Software	Purpose	Website	Special Features	Cost
N3FJP Amateur Call Log (ACL)	Logging	https://www.n3fjp.com	Logs available for many contests.	\$34.99
WSJTx	FT8/FT4	WSJT Home Page (sourceforge.io)		Free
JTAlert	WSJTx logging	HamApps.com		Free
POTALog	Logging	POTALogging.FMCA Amateur Radio Chapter (fmcaarc.com)	Can announce CQ POTA	Free
Ham Square (Phone)	Grid Square	Products (kramshuff.com)	Available on App Store	Free
SOTAmat (Phone & Website)	Spotting & Messaging	SOTAmat – Summits-On-The-Air Automated (sotamat.com)	Available on App Store	Free

MY PERSONAL GO BAG

- Antennas
 - 40m EFHW (QRP Boys) plus spare wire element
 - Dual-band 2m/70cm roll-up J-pole 15 ft RG-8X SMA
- Radio
 - Xiegu X-6100 HF/6m QRP
 - HT (Anytone AT-878D)
- Computer
 - Microsoft Surface Laptop 4
 - sun shield
 - GPS
 - USB hub
- Coax
 - 2 25ft RG-8X with BNC-BNC (one with ferret cores)
 - 1 25ft RG-8X with BNC-PL259
- Low Pass filter (Radioddity LPFX7)
- Power
 - 12v 6000mAH Battery
 - Powerpole distribution block
 - Constant current charger
 - Backup battery for cell phone
- Misc
 - Flashlight
 - Knife and multitool
 - Extra paracord
 - POTA sign and holder
 - Emergency candy
 - First Aid kit
 - Clipboard with License, band plan, scratch paper, paper log for backup
 - Pens and pencils
 - Tent stakes (6)

MY LOGGING

- N3FJP Amateur Contact Log
 - Logging to computer while at park
 - Export ADIF file to upload to POTA website
 - Transfer to my main station log over network when I return home
 - Then upload to QRZ, LOTW, eQSL
- POTALog
 - This has features to specify parks and write a location file for LOTW
 - Have had issues with changing park number, clumsy interface
 - Only use with FT-8 since it has a feature to announce when someone is calling CQ POTA

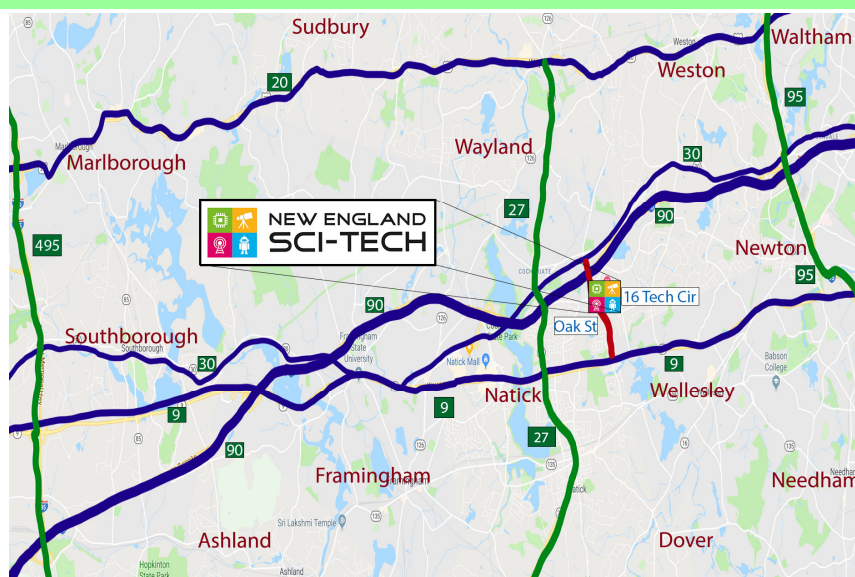
Directions to New England Sci-Tech Inc.

16 Tech Circle <https://www.nescitech.org/directions/> **Natick MA 01760**

From the north: take Rt 95 or Rt 27 or Rt 495 south to Route 30 toward Wayland. Once in Wayland, turn South on Oak Street and in 1/2 mile look for Tech Circle on your left. Follow Tech Circle to the end.

From the south: take Rt 95 or Rt 27 or Rt 495 north to Route 9 toward Natick. At the Wellesley-Natick line, turn North on Oak Street and in 1/2 mile look for Tech Circle on your right. Follow Tech Circle to the end.

From the east or west: follow either Rt 30 or Rt 9 toward Natick, turn onto Oak Street at a set of traffic lights, and in 1/2 mile look for Tech Circle. Follow Tech Circle to the end.



Treasurer's Report ~ Kevin Paetzold, K1KWP

It was good to see so many members at the expo in Marlborough.

The MMRA receives a significant amount of donations each year. On behalf of the club I would like to acknowledge and thank people below who donated since my list in the May newsletter: **KC1CLA, N1CVO, N1DCH, and KC1HPZ.**

My records indicate that at this point about 55% of the members from last year have renewed for this year. If your membership expires in 2023 then it expired on August 31. If your records are different than the club's records, for example you renewed but do not see it indicated in your record please let us know at contact@mmra.org.

73, **K1KWP**

The Amateur's Code

The Radio Amateur is:

CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC...station and skill always ready for service to country and community.

Paul M. Segal, W9EEA, 1928

Repeater Report ~ North Reading Cleanup ~ 10 June 2023



The Water Tower



The Mouse Mess



WN9T Vacuuming



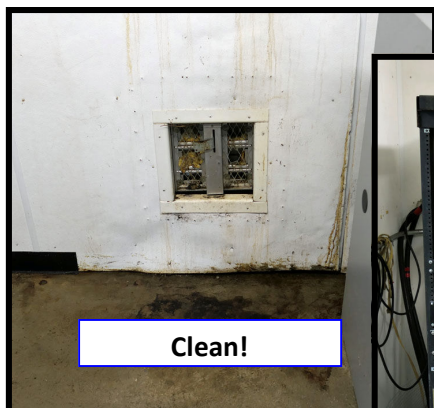
K1DSL Waking Weeds



K1DSL & K1IW Prepping the vent



The covered vent



Clean!



The rigs.



The crew:

Bob, K1IW; John, WN9T; Kevin, K1KWP; Bruce, KC1US; Don, K1DSL; Larry, W1DYJ not in photo

19 June 2023 Business/Membership Meeting ~ Minutes

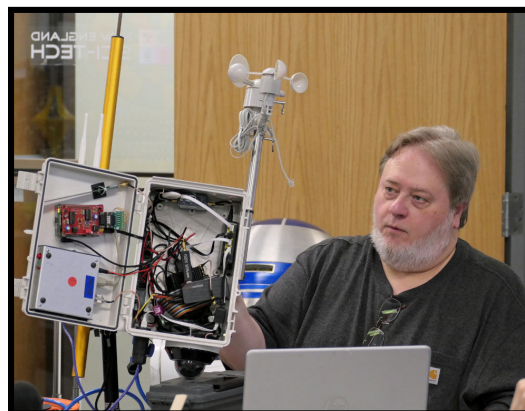
Called to order @ 7:40 PM

The first item on tonight's agenda is Part Two – a Live demonstration - of the AREDN technology. The Part One Presentation was presented back at our March monthly meeting by Orv Beech from the West Coast, Michael Ford from the East Coast and Jim Garner who was slated to perform a live demonstration, but due to a pending snow-storm the MMRA decided to change the live meeting to a Zoom only meeting for travel safety concerns.

Presentation:

AREDN (Part Two) – Amateur Radio Emergency Data Network – by Michael Ford, WZ0C and Jim Gardner, KC1BHD

To review briefly Michael showed us an AR300M for around \$35 on Amazon as the hardware needed to get on AREDN. The software is the heart of the AREDN network Specs on compatible hardware and the software needed to download are found at <https://www.arednmesh.org/> and extensive documentation is located at <https://docs.arednmesh.org/en/latest/> on getting started. If you have an old Router check the AREDN website to verify it is compatible with their network. Like Ham Radio you can spend very little to get started or you can go to extensive equipment and expense.



Simply stated AREDN uses 2.4 Gigs and 5.6 Gigs. However, 2.3 and 5.7 Gigs are used too along with discretely using channels within those frequencies to avoid interference. For example, channel -2 (minus two) is used because it has less noise on it from interference. Data, such as images, voice and files can be sent through the AREDN system. When you register on AREDN, your callsign is submitted as the first element of your user identity as you must be a licensed Ham Radio Operator to use the system. Hospitals and other users are recipients of the data sent on AREDN and can submit data as part of the emergency feature of AREDN.

During tonight's live demonstration Jim showed us how to get onto the mesh network and many of us logged in with our mobile phones to actually view and participate. During this live demonstration both Jim and Michael describe how the network works once you are set up as a remote node on the AREDN MESH network. As a practice test Jim sent out a message and one of us sent a reply in response. Seeing is believing far beyond any words that I can express in these minutes.



The New England Region is just beginning to use this MESH network. In Maine the network is developing on part of the east coast. In New Hampshire Manchester is using AREDN to connect their hospitals. In Massachusetts mesh is starting to be deployed on Cape Cod. When asked what they envision from the MMRA, both Michael and Jim expressed that we might be a part of the development of AREDN in Eastern Massachusetts and the New England Region. While no specifics were discussed at this meeting, the overall sentiment seemed to be positive as some may decide to get the portable mobile router mentioned earlier.

The Presentation portion of this meeting ended at 8:53 PM

19 June 2023 Business/Membership Meeting ~ Continued

Repeater Status Report – from Bob DeMattia – K1IW –

Brookline – Receiver has been completely removed.

Prudential Antenna –

DCI Filter can be reused on new repeater at Pru.

2M antennas can serve as a replacement for Weston, if required, is being stored there.

This also leaves us with a 2nd spare 7330 controller, two commercial quality link antennas and a variable voltage power supply.

Quantar for Prudential is being donated by NN1C, which Bob will be picking up tonight at NE Sci-Tech

Bob asked with the Prudential 2M working well, is there really a need to have both Quincy and Prudential full time linked? Both have coverage that is nearly identical to Quincy and Quincy has relatively a lot of local traffic. For the time being, “leave it be.”

North Reading – The site cleanup has been completed. Now awaiting new repeater. Kenwood NXR710i's have been “picked” at the warehouse and should arrive “any day” now.

All other MMRA Repeater systems normal – No other malfunctions reported.

HamXposition – August 25-27

MMRA ad in Program – Color Centerfold is \$350 – Dave, N1DCH, made a motion to do the color centerfold spot, seconded by Bob, N1BE with the motion passed.

Door Prize – A motion was made by Larry, W1DYJ, to not exceed \$400, seconded by Kevin, K1KWP and passed unanimously. Kevin will be doing the prize drawing on Sunday at noon.

Talk-In-Station – Dave has Mast, Kevin will bring Radio with power supply. The YCCC has a station, W1A, too. Bob was suggesting that the MMRA might be able to help out if the YCCC cannot find enough volunteers.

Monitor – We may need a monitor if Kevin determines it is not working.

Fox Hunt – as there are more than just the MMRA FoxBox, coordination will be needed.

MMRA & DLARC -

Assuming we implement the appropriate license to protect our intellectual property, it appears we want to use the Create Commons License Attribution-Non-Commercial-No-Derivatives 4.0 International (CC BY-NC-ND 4.0). <https://creativecommons.org/licenses/by-nc-nd/4.0/> for all our archive material. New materials produced should have the © MMRA on it. Larry will do a follow-up contact with the Rep from DLARC on this matter.

Upcoming Meetings

August 27, 2023 – An Introduction to MMRA and Raffle

Speaker, TBD. Location – HamXposition, Marlborough

September 20, 2023, 7:30 PM The National Traffic System, Nets in the Area and the Basics of Sending

a Radiogram Speakers: Marcia Ford, KW1U and Joe Weisse, W1HAI @ NE Sci-Tech, Natick

October 18, 2023, 7:30 PM Business Meeting – Zoom Only

November 15, 2023, 7:30 PM A Smorgasbord of Radio -The People, Places and Incidents

Speaker Don Mallozzi – N1DM @ Marlborough Central Fire Station Training Room

December 20, 2023, 7:30 PM Business Meeting – Zoom Only

January 17, 2024, 7:30 PM M - A 10M FM Antenna – to fit in the Attic

Larry Banks, W1DYJ Location: NE Sci-Tech, Natick and Zoom

Tuesday night, 8:00 PM (Year Round)

Technical Information and Other Stuff Net MMRA Linked Repeaters

19 June 2023 Business/Membership Meeting ~ Continued

Newsletter Information to Larry, W1DYJ

Deadline: Friday, August 25, 2023, for the September Newsletter.

Meeting Attendees at NE Sci-Tech Natick, MA:

Dave Hornbaker, N1DCH; Kevin W Paetzold, K1KWP; Bob Phinney, K5TEC; Stephen Babbitt, KC1LPZ; Larry Banks, W1DYJ; Bob Evans, N1BE; Roger Coulson, WA1NVC; Bob DeMattia, K1IW; Anne Vantine, N1MPF; Jim Garner, KC1BHD; Michael Ford, WZ0C; Sammy Ford

Zoom Meeting Attendees::

Joe Wiese, W1HAL;; Ken Horton, KA1GFN; Deb Horton, N1NVJ; Shawn Dodds, N1CVO; Rick Carlson, KC1RTU

Meeting Adjourned at 9:30 PM

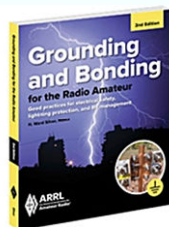
Respectfully Submitted by Stephen M Babbitt, KC1LPZ, Clerk

Northeast HamXposition

The MMRA at HamXposition 2023

Raffle Prizes

First Prize: YAESU VX-6R 144 / 220 / 430 HT
Second Prize: ADA-1 Antenna Disconnect Actuator
Third Prize: Grounding and Bonding for the Radio Amateur



1st Prize: KC1CLA

Ed graciously donated the VX-6R back to the club.

2nd Prize: KC1TCS

3rd Prize: KC1TCS

Jim bought multiple tickets!

Fox Box



FOXBOX at the expoReport from Aug 25, 26,27.

Round 1:

Foxbox was placed Friday AM and found in round 1 by:

WX1L ?
W1SJ 00:15
W5IPA 08:15
K1MJC 11:45

Round 2:

Foxbox was moved Saturday ~5PM and was found in round 2 by W1SJ at 6:05PM.



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Costs	HamX Book AD	\$350
	Prizes	417
	Saturday coffee	21
	TOTAL	\$ 788

Income	Memberships	\$400
	Raffle	309
	Donation	10
	TOTAL	\$719

K1KWP's Presentation: https://mmra.org/2023_mmra_presentation_08.pdf

Upcoming MMRA Meetings

Note: Meeting locations and times are subject to change.

Consult the MMRA website for the most up-to-date information. [ZOOM](#)

[Teleconference login info](#) is available

once you log into your account on [MMRA.ORG](#)

Non-members: if you wish to attend, email contact@mmra.org.

September 20, 2023, 7:30 PM: Membership Mtg

The National Traffic System, Nets in the Area and the Basics of Sending a Radiogram Speakers: Marcia Ford – KW1U and Joe Weisse – W1HAI
Location: New England Sci-Tech + Zoom Teleconference

October 18, 2023, 7:30 PM Business Meeting – Zoom Only

November 22, 2023, 7:30 PM: Membership Mtg — A Smorgasbord of Radio

The People, Places and Incidents Don Mallozzi – N1DM
Location: Marlborough Central Fire Station + Zoom Teleconference

December 20, 2023, 7:30 PM Business Meeting – Zoom Only

January 17, 2024, 7:30 PM: Membership Mtg

A 10m FM antenna to fit into my attic Larry Banks, W1DYJ
Location: New England Sci-Tech + Zoom Teleconference

February 21, 2024, 7:30 PM Business Meeting – Zoom Only

March 20, 2024, 7:30 PM: Membership Mtg

Topic: TBD Speaker: TBD
Location: New England Sci-Tech + Zoom Teleconference

April 17, 2024, 7:30 PM Business Meeting – Zoom Only

May 15, 2024, 7:30 PM Annual Meeting

Topic: TBD Speaker: TBD
Location: New England Sci-Tech + Zoom Teleconference

June 19, 2024, 7:30 PM Business Meeting – Zoom Only

Don't Forget — Join Us!

Every Tuesday @ 8 PM

Technical, Informational and Other Stuff Net

The MMRA's repeaters are linked Tuesday nights for the TIOS Net. Keep up with what's happening in the MMRA and ask your ham related questions.

Net Control Operators:

Week 1	W1DYJ	Larry Banks
Week 2	KB1OQA	Jonathan Traum
Week 3	KC1CLA	Ed Curley
Week 4	K1KWP	Kevin Paetzold
Week 5	K1BTZ	Tom Turner

To connect using Echolink during the Net:

- Echolink Conference *NEW-ENG2*

NOTE: we need another NC to be available as a substitute. If you are interested, email W1DYJ@mmra.org

MMRA Leaders

Executive Board — Officers

President	Dave Hornbaker	N1DCH
Vice President	John Spencer	WA1MDD
Secretary	Jason Peardon	W1HFP
Treasurer	Kevin Paetzold	K1KWP
Clerk	Stephen Babbitt	KC1LPZ

Executive Board — Directors

Director »2024	Rob Evans	N1BE
Director »2024	James Lee	N1DDK
Director »2025	Bob DeMattia	K1IW
Director »2025	Roger Coulson	WA1NVC

Appointed

Technical Officer Bob DeMattia K1IW

Repeater Trustees

Belmont 145.43	Ed Curley	KC1CLA
Billerica 147.12	Mike Rioux	W1USN
Boston 146.82	John Mullaney	K1BOS
Boston 927.0625	Rick Zach	K1RJZ
Brookline 145.16	Joyce DeMattia	K1MRA
Burlington 224.88	Bruce Pigott	KC1US
Hopkinton 449.575	Bryan Cerqua	W1BRI
Lowell 442.25	Bob Phinney	K5TEC
Marlborough 53.81	Bryan Cerqua	W1BRI
Marlborough: 29.68, 144.39, 147.27, 223.94, 448.225, 449.925, 927.70		
all as W1MRA	Bill Northup	N1QPR
Mendon 146.61	Kevin Paetzold	K1KWP
N. Reading 146.715	Bruce Pigott	KC1US
N. Reading 446.775	Larry Banks	W1DYJ
Quincy 224.40	Bill Dunn	N1KUG
Quincy 146.67	Bryan Cerqua	W1BRI
Weston 146.79	Joe Weisse	W1HAI
Weston 224.70	Eddie Mulhern	N1NOM
Weston 442.70	Dave Hornbaker	N1DCH

Additional, non-Voting

Newsletter Editor	Larry Banks	W1DYJ
Emerg. Coord.	Kevin Paetzold	K1KWP
Pub. Serv. Coord.	Bruce Pigott	KC1US
VEC Liaison	Ron Rothman	WO1E
Net Manager	Larry Banks	W1DYJ
Web Page Editor	Bob DeMattia	K1IW
Social Media Coord.	Steve Umans	K8ZBE

President Emeritus

Bob DeMattia K1IW

Technical Officer Emeritus

Bryan Cerqua W1BRI

Contacting the MMRA



Members: mmra@groups.io

Note: This may take some time.

You must be approved by the moderator.

Officers: contact@mmra.org

Control Ops: control-ops@mmra.org



<http://www.mmra.org/>



<https://www.facebook.com/mmraham>

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MMRA VE SESSIONS

Check out <https://www.mmra.org/exam.html> or email ve@mmra.org

Ask your friends to become a member Just let them know that it is not fully automated. Although they can log into the MMRA website immediately, they need to be manually processed. This could take up to a week.

If you haven't updated your MMRA profile in a while,
now is the time!

Go to < MMRA.ORG > and log in to do so.

Previous issues of the MMRA Newsletter are available
at: www.mmra.org > [Newsletter Archive](#) (on the left)

Heavy Hitters Traffic Net

This net is active on our repeaters Sunday to Friday evenings from 9:45—11 PM and Saturday from 10-11. Active repeaters are:

2m: Mendon (146.61), Quincy (146.67), North Reading (146.715), Boston (146.82), and Marlborough (147.27)

220: Marlborough (223.94), Quincy (224.40), Weston (224.70), and Burlington (224.88),

440: Lowell (442.25), North Reading (446.775), Hopkinton (449.575), and Marlborough (449.925)



NEW ENGLAND SCI-TECH

New England Sci-Tech Inc is a new 501(c)(3) STEM education center, amateur radio training center, and maker space located at 16 Tech Circle, Natick. It is home to New England Amateur Radio Inc (NE1AR) and the youth radio club Sci-Tech Amateur Radio Society (STARS). NE Sci-Tech welcomes memberships and donations via www.NESciTech.org or www.NE1AR.org.

Get connected on the MMRA Repeater System ~ Dave Hornbaker N1DCH

What is the best way to get connected on the MMRA repeater system? Try announcing yourself! Just say your call sign followed by "listening". If you want, you can include the last 3 digits of the repeater frequency. For example, "N1DCH listening" or maybe "N1DCH listening on 925", you may very well get a response. Try to connect by announcing yourself several times.

Most of the time, Marlborough Hub1 (449.495) is linked to the following repeaters, Boston (146.820), North Reading (446.775 and 146.715), Mendon (146.610), Lowell (442.250), Hopkinton (449.575) and Quincy (146.67.) Remember that when the repeaters are linked, you need to wait two or three seconds after you key up and before you speak. This is especially important on the TlaOS net on Tuesday when most of the repeaters are linked.

You can also link (and delink) the repeaters yourself. See the information you received when you became a member, or check the [User Control Codes](#) once you log into the MMRA web.

Try one of the non-linked repeaters too. There are Hams monitoring them as well. For more information on the repeater network and how it is linked at various times, check out https://mmra.org/repeaters/repeater_linking.html.